The Control and Energy Systems Center was established at Case Western Reserve University with the support of the Milton and Tamar Maltz Family Foundation and the Cleveland Foundation.

The QFT Control Toolbox (QFTCT) for MATLAB is the interactive and user-friendly tool for QFT robust control systems design (Quantitative Feedback Theory) developed by Prof. Mario Garcia-Sanz. Over the years, the toolbox has been widely applied by industry, space agencies, research centers and universities to design QFT robust control solutions and servo-systems.

An Innovative Approach to Airborne Wind Energy: The EAGLE System. Designed and patented at CESC. 2.5 kW, 25 kW or 100 kW aloft wind turbine at varying altitudes.

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The Milton and Tamar Maltz Professorship in Energy Innovation

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Mission

The Control and Energy Systems Center (CESC) looks for new transformational research and engineering breakthroughs to build a better world, improving our industry, economy, energy, environment, water resources and society, all with sustainability and within an international collaboration framework.

Focus

With an interdisciplinary and concurrent engineering approach, the Control and Energy Systems Center focuses on bridging the gap between fundamental and applied research in advanced control and systems engineering, with special emphasis in energy innovation, wind energy, power systems, water treatment plants, sustainability, spacecraft, environmental and industrial applications.

Fundamental Research

To gain knowledge and understanding on multi-input-multi-output physical worlds, nonlinear plants, distributed parameter systems, plants with non-minimum phase, time delay and/or uncertainty, etc., and to develop new methodologies to design quantitative robust controllers to improve the efficiency and reliability of such systems.

Applied Research


The Control and Energy Systems Center (CESC) is an interdisciplinary and international team of professors and researchers. See http://cesc.case.edu EECS & EMAE departments, Case School of Engineering.